

REMARKS/ARGUMENTS

Claim Objections

Claims 54 and 61 are objected to because of the following informalities:

In claim 54, line 4, remove “of” before “times” and place before “that”.

- 5 In claim 61, line 2, replace “till” with –until--.

Response:

Claim 54 has been amended to more clearly define the claimed limitations directed to the formula shown in specification paragraph [Para 27] of applicant’s disclosure. Claim 61 has been amended to correct the editorial error indicated by Examiner.

- 10 In addition, claims 32 and 39 contain the same limitations recited in claims 54 and 61 respectively. Therefore, claims 32 and 39 have been amended accordingly.

As no new matter is introduced, acceptance of above-identified claim amendments is respectfully requested.

15 **Claim Rejections – 35 USC 102**

Claims 49 and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by Udagawa (U.S. Patent No. 5,563,862).

Response:

Claim 49

- 20 Examiner states that all of the limitations recited in applicant’s claim 49 are anticipated by teaching of Udagawa. The applicant respectfully disagrees. In view of the arguments set forth hereinafter, the applicant asserts that claim 49 has been placed in condition for allowance.

- 25 Udagawa teaches that the optical disc has a power control area (PCA) serving as a trial-test area, and an optimum power calibration (OPC) operation controls a laser diode to record test data onto the PCA, detects asymmetry values corresponding to RF signals obtained from reproducing the test data recorded on the PCA, and then selects one asymmetry value closest to a target value (col. 4, lines 4-6; col. 7, lines 6-16). Udagawa further discloses

that value of the laser driving power associated with the selected asymmetry value closest to the target value is set as an optimum value of the laser driving power (col. 8, lines 34-60).

The applicant points out that Udagawa merely teaches using an OPC operation to measure a plurality of asymmetry values for a plurality of laser driving power values under test,

5 respectively, and then determine that a tested laser driving power value corresponding to a measured asymmetry value closest to a target asymmetry value is an optimum laser driving power value for recording data onto or reading data from an optical disc. In other words, Udagawa teaches that each laser driving power value tested under the OPC operation is associated with one particular asymmetry value. The OPC operation taught by Udagawa,
10 however, does not determine a power relationship relating a plurality of laser driving power values to a plurality of laser powers of the laser diode. In addition, upon careful review of Udagawa's disclosure, the applicant finds no description pertinent to determining a power relationship relating laser driving power values to laser powers of the laser diode.

Briefly summarized, the cited OPC operation taught by Udagawa is to use a plurality of
15 different test laser powers for deriving a plurality of asymmetry values and then directly select one of the derived asymmetry values that is closest to a target asymmetry value for determining an optimum laser power. No power relationship between the laser power and the laser power driving value is computed during Udagawa's OPC operation. The applicant therefore asserts that the claimed limitation "determining a power relationship relating values
20 of the drive signal to powers of the light emitting device according to the power indication signal for each of the values of the drive signal during a calibration mode" is neither taught nor suggested by Udagawa's teaching. (*emphasis added*)

Examiner further states that the combination of CPU (24) and APC circuit (31) taught
by Udagawa can read on the claimed signal calibration circuit, and the claimed predetermined
25 reference voltage is anticipated by Udagawa's target value. The applicant deems that teaching of Udagawa is misinterpreted by Examiner. In view of above statements, the applicant points out that Udagawa teaches determining an optimum laser driving power value through finding an asymmetry value closest to a target value (i.e., a target asymmetry value), rather than

calculating the laser power indication value according to the target asymmetry value. That is, as Examiner states that Udagawa's laser monitor (5) or photodetector (9) reads on applicant's claimed light detector for detecting the light emitted by the light emitting device to generate an analog signal, the applicant points out that the combination of Udagawa's CPU (24) and
5 APC circuit (31) fails to generate a laser power indication value according to the target asymmetry value and an analog output of Udagawa's laser monitor (5) or photodetector (9). In short, the target asymmetry value taught by Udagawa is used for asymmetry value selection rather than laser power indication value generation. Additionally, referring to equations in col. 2 and col. 10 of Udagawa's disclosure, a skilled person can readily realize
10 that the calculated asymmetry value is by no means a reference voltage. Thus Udagawa's target value (i.e., the target asymmetry value) fails to read on applicant's claimed predetermined reference voltage. The applicant therefore asserts that the claimed limitation "a signal calibration circuit having a predetermined reference voltage for generating the power indication signal according to the analog signal and the predetermined reference voltage" is
15 neither taught nor suggested by Udagawa's teaching. (*emphasis added*)

In col. 8, lines 60-62, Udagawa teaches that the driving power information indicating the optimum laser power driving value found through selecting a measured asymmetry value closest to the target asymmetry value is stored into a memory (47). The applicant points out that the driving power information taught by Udagawa is different from applicant's claimed
20 power relationship relating values of the drive signal to powers of the light emitting device. In addition, note is also made by the applicant that Udagawa is silent on using a non-volatile memory to implement the memory (47) shown in Udagawa Fig. 4. Furthermore, upon careful review of Udagawa's disclosure, the applicant finds no description pertinent to determining a power relationship relating laser driving power values to laser powers of the laser diode.
25 Therefore, the claimed limitation "a non-volatile memory for storing the power relationship determined by the microprocessor during the calibration mode" is neither taught nor suggested by Udagawa's teaching. (*emphasis added*)

In light of at least above reasons, the applicant asserts that claim 49 should be found

allowable over the cited prior art. Withdrawal of the rejection and reconsideration of claim 49 is respectfully requested.

Claim 60

5 Claim 60 is a method claim containing similar limitations recited in claim 49 being an apparatus claim. In view of above arguments of claim 49, the applicant asserts that claim 60 should be found allowable over the cited prior art. Withdrawal of the rejection and reconsideration of claim 60 is respectfully requested.

10 Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Sincerely yours,



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